APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,942	10/28/2003	Kenji Sugiyama	P69233US0	4316

7590   01/28/2008

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EXAMINER
RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
2621	

MAIL DATE	DELIVERY MODE
01/28/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 November 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.114(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission on 11/15/07 has been entered.

2.   The Applicant has submitted a proposed amendment including "carrying first and second

alternate fields", "the progressive moving-picture video signal having scanning lines at the same

timing as scanning lines of the first fields of the interlaced moving-picture video signal", and

"the second fields having scanning lines half of the scanning lines of the progressive moving-

picture video signal" for independent claims 1-3, 5, 7-8 (Proposed amendment: page 8, lines 1-

23; page 9, lines 1-12), and augmented the proposed amendment with two arguments asserting

that the Demos reference of record would does not address the features (Proposed amendmend:

page 9, lines 13-18), as in the proposed amended claims. The Examiner would respectfully

disagree. While the grounds for rejection would change, the Examiner would respond by noting

that Demos would still apply as the basis of a rejection of claims 1-8 as being unpatentable under

35 U.S.C. 103(a). In particular, the modification would be to modify the teaching of Demos to

double the spatial resolution of original interlaced signal (Demos: column 12, lines 30-50) prior

the conversion of the signal to a progressive video signal decimated to half of the frame rate of

the original input video signal. Accordingly, the Examiner maintains that

As to the second argument that the claims as currently stipulated distinguish over the

Demos reference (Proposed Amendment: page 9, lines 19-23; page 10, lines 1-13), the Examiner

respectfully disagrees. It is noted that the claims stipulate that the first encoding step results in a

"first bitstream", and the nature of the bistream is never sufficiently specified to establish

whether it is either progressive or interlaced. Accordingly, this argument carries little weight

with the Examiner and Demos is seen to read upon the broad limitation, *In re Self, 671 F.2d*

1344, 213 USPQ 1, 5, (CCPA 1982).

Although the claims as currently examined are no different from the status of the claims

of the final rejection of record, the Applicant has made a good faith effort to amend to the claims

to overcome Demos, and it is the Examiner's inability to timely provide the Applicant with the

requested Interview to discuss in detail to proposed amendments to the claims that led to claims

not being altered to overcome Demos. Accordingly, this action is considered a non-final action,

as the Examiner has generally considered the proposed amendment, and will discuss in detail the

proposed amendment in a forthcoming interview with Applicant's representative.

A detailed rejection of the current claims follows below.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of appropriate paragraphs of 35 U.S.C. 102 that forms the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
patent by another filed in the United States before the invention by the applicant for patent, except that an
international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4.   Claims 1-8 remain rejected under 35 U.S.C. 102(e) as being anticipated by Demos.

Demos discloses a temporal scalable moving-picture video signal coding method (Demos: column 2, lines 10-20), comprising the steps of: converting an input interlaced moving-picture video signal into a progressive moving-picture video signal at the same frame rate per second (Demos: column 7, lines 20-30) as the interlaced moving-picture (Demos: column 24, lines 50-67; column 25, lines 1-30); encoding the progressive moving-picture video signal to produce a first bitstream (Demos: column 7, lines 7-45-67; column 8, lines 1-52); encoding fields of the interlaced moving picture video signal, the fields being different in time from frames of the progressive moving-picture prediction video signal (Demos: column 11, lines 47-67; column 12, lines 40-50), with inter-picture prediction using a locally decoded picture signal as a reference video signal (Demos: column 8, lines 45-65), the locally decoded picture signal being produced by locally decoding the progressive moving-picture video signal, thus producing a second bitstream (Demos: column 9, lines 55-67); and multiplexing the first and second

bitstreams into an output temporal scalable moving-picture video bitstream (Demos: column 10, lines 45-67; column 11, lines 1-15), as in claim 1.

Demos discloses a temporal scalable moving-picture video signal decoding method (Demos: column 9, lines 55-67), comprising the steps of: demultiplexing a bitstream produced by temporal scalable moving-picture coding (Demos: column 12, lines 50-67; column 13, lines 1-12) into a first bitstream and a second bitstream (Demos: column 8, lines 55-67), the first bitstream having been produced by encoding a progressive moving-picture videos signal at the same frame rate per second (Demos: column 7, lines 20-35) as an interlaced moving-picture video signal to be reproduced (Demos: column 24, lines 50-67; column 25, lines 1-20), the second bitstream having been produced, by encoding fields of the interlaced moving-picture video signal, the fields being different in time from frames of the progressive moving-picture video signal (Demos: column 14, lines 45-55); decoding the first bitstream to reproduce a progressive moving-picture video signal (Demos: column 27, lines 45-67); converting the reproduced progressive moving-picture signal into a first field video signal having either even-numbered or odd numbered fields of the interlaced moving-picture video signal (Demos: column 28, lines 1-10); decoding the second bitstream with inter-picture prediction using the reproduced progressive moving-picture video signal (Demos: column 16, lines 50-67; column 17, lines 1-20), thus producing a second field video signal having fields of the second interlaced moving picture video signal, the fields of the second field video signal being different in parity from the fields of the first video signal (Demos: column 28, lines 10-25); and switching the first field video signal and the second field video signal to output the interlaced moving-picture video signal (Demos: column 20, lines 60-65), as in claim 2.

Demos discloses a temporal scalable moving-picture video signal coding apparatus (Demos: column 2, lines 10-20), comprising: a converter to convert an input interlaced moving-picture video signal into a progressive moving-picture video signal at the same frame rate per second (Demos: column 7, lines 20-30) as the interlaced moving-picture video signal (Demos: column 24, lines 50-67; column 25, lines 1-30); a first bitstream generator to encode the progressive moving-picture video signal, thus generating a first bitstream (Demos: column 8, lines 55-67); a second bitstream generator to encode fields of the interlaced moving-picture video signal, the fields being different in time from frames of the progressive moving-picture video signal (Demos: column 14, lines 45-55), with inter-picture prediction using a locally decoded picture signal as a reference video signal (Demos: column 9, lines 35-40), the locally decoded picture signal being produced by locally decoding the progressive moving picture video signal, thus producing a second bitstream (Demos: column 10, lines 35-40); and a multiplexer to multiplex the first and second bitstreams into an output temporal scalable moving-picture video bitstream (Demos: column 8, lines 65-67: "embed" the enhancement layer), as in claim 3.

Regarding claim 4, Demos further discloses a scanning line down-sampler to which the progressive moving-picture video signal obtained by the converter is supplied (Demos: column 7, lines 23-27), the down-sampler down-sampling the progressive moving-picture video signal in a spatial vertical direction to produce a progressive moving-picture video signal having a smaller number of scanning lines than the progressive moving-picture video signal obtained by the converter (Demos: column 7, lines 30-37), wherein the progressive moving-picture video signal having the smaller number of scanning lines is supplied to the first bitstream generator, thus a third bitstream having the smaller number of scanning lines being generated (Demos: column 7,

lines 35-45), and the second bitstream generator has a scanning line up-sampler to up-sample a locally decoded video signal in the spatial vertical direction (Demos: column 24, lines 20-30), the locally decoded video signal being obtained by locally decoding the third bitstream to produce a video signal having the same number of scanning lines as the progressive moving-picture videos signal supplied to the down-sampler, the produced video signal being uses as the reference video signal (Demos: column 14, lines 1-10), as in the claim.

Demos discloses a temporal scalable moving-picture video signal decoding apparatus (Demos: column 9, lines 55-67), comprising: a demultiplexer to demultiplex a bitstream producd by temporal scalable moving-picture coding (Demos: column 12, lines 50-67; column 13, lines 1-12) into a first bitstream and a second bitstream (Demos: column 8, lines 55-67), the first bitstream having been produced by encoding a progressive moving-picture video signal at the same frame rate per second (Demos: column 7, lines 20-35) as an interlaced moving-picture video signal to be reproduced (Demos: column 24, lines 50-67; column 25, lines 1-20), the second bitstream having been produced by encoding fields of the interlaced moving-picture video signal, the fields being different in time from frames of the progressive moving-picture video signal (Demos: column 20, lines 60-67); a first decoder to decode the first bitstream to reproduce a progressive moving-picture video signal (Demos: column 27, lines 45-67); a converter to convert the reproduced progressive moving-picture video signal into a first field video signal having either even or odd-number fields of the interlaced moving-picture video signal (Demos: column 28, lines 1-10); a second decoder to decode the second bitstream with inter-picture prediction using the reproduced progressive moving-picture video signal as a reference video signal (Demos: column 16, lines 50-67; column 17, lines 1-20), thus producing a

second field video signal having fields of the interlaced moving-picture video signal, the fields of

the second field video signal being different in parity from the fields of the first field video signal

(Demos: column 28, lines 10-25); and a switch to switch from the first field video signal and the

second field video signal to output the interlaced moving-picture video signal (Demos: column

20, lines 60-65), as in claim 5.

Regarding claim 6, Demos discloses wherein the demultiplexer demultiplexes the

bitstream produced by temporal scalable moving-picture coding into the second bitstream and a

third bitstream produced by encoding a progressive moving-picture video signal is down-

sampled in a spatial vertical direction (Demos: column 23, lines 20-30) at the same frame rate as

the interlaced moving-picture video signal to be reproduced (Demos: column 7, lines 20-35), the

first decoder decoding the third bitstream into the down-sampled progressive moving-picture

video signal and up-sampling the down-sampled and decoded progressive moving-picture video

signal in the spatial vertical direction (Demos: column 24, lines 20-30), and the converter

converting the up-sampled progressive moving-picture video signal into the first field video

signal (Demos: column 14, lines 1-10), as in the claim.

Demos discloses a computer readable medium encoded with a computer program

comprising: instructions for a computer-implemented method (Demos: column 48, lines 25-40)

for temporal scalable moving-picture video signal coding, when executed, said method (Demos:

column 2, lines 10-20) causing the computer to execute: converting an input interlaced moving-

picture video signal into a progressive moving-picture video signal at the same frame rate per

second (Demos: column 7, lines 20-30) as the interlaced moving-picture (Demos: column 24,

lines 50-67; column 25, lines 1-30); encoding the progressive moving-picture video signal to

produce a first bitstream (Demos: column 7, lines 7-45-67; column 8, lines 1-52); encoding fields

of the interlaced moving picture video signal, the fields being different in time from frames of

the progressive moving-picture prediction video signal (Demos: column 11, lines 47-67; column

12, lines 40-50), with inter-picture prediction using a locally decoded picture signal as a

reference video signal (Demos: column 8, lines 45-65), the locally decoded picture signal being

produced by locally decoding the progressive moving-picture video signal, thus producing a

second bitstream (Demos: column 9, lines 55-67); and multiplexing the first and second

bitstreams into an output temporal scalable moving-picture video bitstream (Demos: column 10,

lines 45-67; column 11, lines 1-15), as in claim 7.

Demos discloses a computer readable medium encoded with a computer program

comprising instructions for a computer-implemented method (Demos: column 48, lines 25-40)

for temporal scalable moving-picture video signal decoding, when executed, said method

(Demos: column 9, lines 55-67) causing the computer to execute: demultiplexing a bitstream

produced by temporal scalable moving-picture coding (Demos: column 12, lines 50-67; column

13, lines 1-12) into a first bitstream and a second bitstream (Demos: column 8, lines 55-67), the

first bitstream having been produced by encoding a progressive moving-picture videos signal at

the same frame rate per second (Demos: column 7, lines 20-35) as an interlaced moving-picture

video signal to be reproduced (Demos: column 24, lines 50-67; column 25, lines 1-20), the

second bitstream having been produced, by encoding fields of the interlaced moving-picture

video signal, the fields being different in time from frames of the progressive moving-picture

video signal (Demos: column 14, lines 45-55); decoding the first bitstream to reproduce a

progressive moving-picture video signal (Demos: column 27, lines 45-67); converting the

reproduced progressive moving-picture signal into a first field video signal having either even-numbered or odd numbered fields of the interlaced moving-picture video signal (Demos: column 28, lines 1-10); decoding the second bitstream with inter-picture prediction using the reproduced progressive moving-picture video signal (Demos: column 16, lines 50-67; column 17, lines 1-20), thus producing a second field video signal having fields of the second interlaced moving picture video signal, the fields of the second field video signal being different in parity from the fields of the first video signal (Demos: column 28, lines 10-25); and switching the first field video signal and the second field video signal to output the interlaced moving-picture video signal (Demos: column 20, lines 60-65), as in claim 8.

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621

asr
January 17, 2008